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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,418	12/17/2001	Shuit-Tong Lee	12364.36US01	2298
23552	7590	12/08/2003	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			VERSTEEG, STEVEN H	
			ART UNIT	PAPER NUMBER
			1753	

DATE MAILED: 12/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/023,418

Applicant(s)

LEE ET AL.

Examiner

Steven H VerSteeg

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is conducted in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-12,38 and 39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7,9-12 and 39 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Double Patenting

1. Claim 38 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 12. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Response to Amendment

2. The objection to the specification presented in the office action mailed April 28, 2003 is withdrawn in light of the amendment.
3. The claim objection of claims 2 and 3 presented in the office action mailed April 28, 2003 is withdrawn in light of the amendment.
4. The 112-second paragraph rejections presented in the office action mailed April 28, 2003 are withdrawn in light of the amendment.
5. The 102(b) rejection of claims 8 and 9 over *Ion beam texturing* by Hudson presented in the office action mailed April 28, 2003 is withdrawn in light of the amendment.
6. The 102(b) rejection of claim 10 over *Geometry and structure of sputter-induced cones on nickel-seeded silicon* by Fujimoto et al. (Fujimoto) presented in the office action mailed April 28, 2003 is withdrawn in light of Applicant's arguments.
7. The 103(a) rejection of claim 11 over *Geometry and structure of sputter-induced cones on nickel-seeded silicon* by Fujimoto et al. (Fujimoto) in view of US 6,296,740 B1 to Xie et al.

(Xie) presented in the office action mailed April 28, 2003 is withdrawn in light of Applicant's arguments.

Allowable Subject Matter

8. Claims 1-7, 9-12, and 39 are allowed.
9. The following is a statement of reasons for the indication of allowable subject matter: it is neither anticipated nor obvious over the prior art of record to have a method for the synthesis of large area uniform cone arrays as claimed by Applicant in claim 9 wherein the first material is selected from the group consisting of germanium or graphite and the second material is a metal.
10. Hudson uses several materials for the first material, but germanium and graphite are not among the possibilities. Modifying Hudson to use germanium or graphite would require hindsight.
11. It is also neither anticipated nor obvious over the prior art of record to have an apparatus for ion beam sputtering of large uniform silicon cones as claimed by Applicant in claims 10 and 39 comprising means for adjusting the angles between the center of the ion beam of the ion beam sputtering and the substrate surface normal. Fujimoto uses fixed angle of 55 degrees. There is no reason to have the ability to adjust the angle in Fujimoto unless hindsight reasoning is used.

General Information

For general status inquiries on applications not having received a first action on the merits, please contact the Technology Center 1700 receptionist at (703) 308-0661.

For inquiries involving Recovery of lost papers & cases, sending out missing papers, resetting shortened statutory periods, or for restarting the shortened statutory period for response, please contact Palestine Jenkins at (703) 308-3521.

For general inquiries such as fees, hours of operation, and employee location, please contact the Technology Center 1700 receptionist at (703) 308-0661.

Special Notice Regarding PTO Relocation to Alexandria, Virginia

During December 2003, the USPTO will begin its relocation to the Carlyle facility in Alexandria, Virginia. I am scheduled to move at some point in December 2003. At that time, my phone number will change. My new phone number will be (571) 272-1348. If you need to speak with me during December 2003, I recommend first calling my old area code 703 phone number. If that number has been disconnected, then try the new area code 571 phone number. Beginning January 2003, please discontinue use of the area code 703 phone number.

Conclusion

12. This application is in condition for allowance except for the formal matters mentioned above.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven H VerSteeg whose telephone number is (703) 305-4473. The examiner can normally be reached on Mon - Thurs (7:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X Nguyen can be reached on (703) 308-3322. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Steven H VerSteeg
Primary Examiner
Art Unit 1753

shv
December 2, 2003